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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/549,240	09/12/2005	Kengo Nagata	6268-008/NP	5998
27572	7590	02/21/2008		
HARNES, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			EXAMINER CUMMING, WILLIAM D	
			ART UNIT 2617	PAPER NUMBER
			MAIL DATE 02/21/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/549,240	<b>Applicant(s)</b> NAGATA ET AL.	
	<b>Examiner</b> WILLIAM D. CUMMING	<b>Art Unit</b> 2617	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-10 is/are allowed.
- 6) ☐ Claim(s) 1-3 and 11-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                 | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Specification***

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-3, 11-15 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The terms "special" and "standard" in claims 1 and 11 are a relative terms which renders the claim indefinite. The terms are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-3 and 11-15 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by **Odenwalder, et al** (WO 02/091767) as stated below and in the European Search Report of August 29, 2006.

8. Claims 1-3 and 16-18 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by **Odenwalder, et al** (United States Patent).

**Odenwalder, et al** disclose a wireless packet communication method ("*Systems and techniques for communications wherein a data packet is transmitted over at least one time slot from a transmission site, a value is computed from an initial value and information, the initial value being a function of the number of time slots of the data packet transmission, the value and the information is transmitted from the transmission site, the transmitted value and the information is received at a receiving site, the value from the received information is recalculated, and the number of time slots of the data packet transmission is determined from the calculated and recalculated values.*") for transmitting a data packet in a special format and a data packet in a standard format between STAs (*In an exemplary embodiment of a communications system, data packets can be transmitted over one or more time slots. Accompanying each data packet is an information subpacket. The information subpacket includes information for decoding the corresponding data packet and a value calculated from an initial value using the information. The value embedded in the transmission can be used to determine the number of time slots used to transmit the corresponding data packet*), the data packet in a special format being generated by connecting or patching a plurality of data frames, the data packet in a standard format being generated from one data frame ("*The channel scheduler 214 may also schedule the modulation format of the data subpacket based on the quality of the*

*communications channel between the base station 106 and the subscriber station 108. By way of example, in a relatively distortion free environment with little to no interference, the channel scheduler 214 may schedule a high data rate to transmit each data subpacket over one time slot with a 16-QAM modulation format. Conversely, for subscriber stations with poor channel conditions, the channel scheduler 214 may schedule a low data rate to transmit each data subpacket over eight time slots with a QPSK modulation format. The optimal combination of data rate and modulation format to maximize the throughput of the system can readily be determined by those skilled in the art.").* The method comprising transmitting a request packet from an STA supporting the special format before transmitting the data packet, the request packet being receivable only by an STA supporting the special format ("The forward link transmission generated by the base station 106 may also include one or more forward packet data control channels associated with the forward packet data channel. Conventional high-speed packet data systems with multiple time slot arrangements sometimes utilize two forward packet data control channels: a forward primary packet data control channel and a forward secondary packet data control channel. The forward secondary packet data control channel carries information subpackets which can be used by the subscriber station to receive or decode the corresponding data subpackets on the forward packet data channel. In a manner similar to the forward packet data channel, the information subpackets carried by the forward secondary packet data control channel can be

*transmitted over one or more time slots to optimize communications with various subscriber stations having different channel conditions. In one exemplary embodiment of a CDMA communications system, the information subpackets can be transmitted over the forward secondary packet data control channel in one, two or four 1.25 ms time slots depending on the number of time slots occupied by the corresponding data subpackets. By way of example, the information subpacket can be transmitted over one slot for a one-slot data subpacket, two slots for a two-slot data subpacket, or four slots for a four-slot or eight-slot data subpacket. To distinguish between the four-slot and eight-slot data subpacket format, various methods can be used. One approach is to use different interleavers to re-order the symbol sequence at the base station depending on whether the data subpacket is transmitted over four or eight time slots. The number of time slots occupied by the information subpacket on the forward secondary packet data control channel can be determined from information carried on the forward primary packet data control channel.”).*

Managing, by an STA having received said request packet and supporting the special format, a transmit-side STA of said request packet as one supporting the special format, and transmitting therefrom to the transmit-side STA a reply packet which is receivable only by the STA supporting the special format (“The CRC value can also be used to distinguish between the four-slot and eight-slot data subpacket format. This can be accomplished by setting the initial CRC to one of two different values depending on the format of the data subpacket. The initial

*CRC value refers to the contents of the shift register before the information subpacket is shifted therethrough. In conventional CDMA communications systems employing CRC error detection, the CRC value is computed with a procedure that sets the initial CRC value to all "ones." This procedure is a convenient way to identify a data subpacket having a one, two or four-slot format, although any initial CRC value can be used. In the case where the data subpacket has an eight slot format, the CRC value can be calculated with a procedure sets the initial CRC value to all "zeros," or some other value that distinguishes the eight slot transmission from the four slot transmission. This approach may be more attractive than using two different block interleavers to distinguish between the four slot and eight slot data subpacket format because of reduced computational complexity both at the base station and subscriber station." ). Managing the transmit-side STA of said reply packet as one supporting the special format, by the STA having received said request packet and supporting the special format ("In a further aspect of the present invention, a receiving device includes means for receiving a data packet transmitted over at least one time slot, and a value and information, the value being computed from an initial value and the information, the initial value being a function of the number of time slots of the data packet transmission, means for recalculating the value from the received information, and determination means for determining the number of time slots of the data packet transmission from the calculated and recalculated values.") and transmitting, according to management information in*



an own station, the data packet in the special format when a receive-side STA supports the special format, and transmitting the data packet in the standard format when the receive-side STA does not support the special format (*"In one aspect of the present invention, method of communications includes transmitting a data packet over at least one time slot from a transmission site, computing a value from an initial value and information, the initial value being a function of the number of time slots of the data packet transmission, transmitting the value and the information from the transmission site, receiving the transmitted value and the information at a receiving site, recalculating the value from the received information, and determining the number of time slots of the data packet transmission from the calculated and recalculated values."*)

***Allowable Subject Matter***

9. Claims 4-15 are allowed.
10. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

11. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record does not disclose or make obvious the claimed wireless packet communication method for generating a plurality of data packets in a special format in which a plurality of data frames are patched, and transmitting the data packets simultaneously between STAs. The claimed adding, to each of said plurality of data frames, a subheader including a field indicating a data size, a field indicating an order of a frame, and a field indicating presence/absence of a subsequent frame. The claimed step of generating one data block by connecting the data frames having the subheaders added thereto, and generating a number of data blocks by dividing the one data block so that the data blocks have a uniform packet time length, the number of data blocks corresponding to a number of simultaneous transmissions and adding a main header to each of the number of data blocks corresponding to the number of simultaneous transmissions, and the claimed step of adding a control information field of the data packet before each of the data blocks having the main header added thereto and adding a frame check field of the data packet thereafter, to generate the data packets, the main header including information necessary to restore the patched data frames.

***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**Alastalo** disclose a communicatinf packet data in a SDMA communication scheme.

13. If applicants wish to request for an interview, an *"Applicant Initiated Interview Request"* form (PTOL-413A) should be submitted to the examiner prior to the interview in order to permit the examiner to prepare in advance for the interview and to focus on the issues to be discussed. This form should identify the participants of the interview, the proposed date of the interview, whether the interview will be personal, telephonic, or video conference, and should include a brief description of the issues to be discussed. A copy of the completed *"Applicant Initiated Interview Request"* form should be attached to the Interview Summary form, PTOL-413 at the completion of the interview and a copy should be given to applicant or applicant's representative.

## 14. NOTICES REGARDING CLAIMS AND CONTINUATIONS RULES

### Rules and Clarifications Not Effective on November 1, 2007.

The United States Patent and Trademark Office (USPTO) published a final rule notice in the Federal Register to revise the rules of practice in patent cases relating to continuing applications and requests for continued examination practices, and for the examination of claims in patent applications. See Changes to Practice for Continued Examination Filings, Patent Applications Containing Patentably Indistinct Claims, and Examination of Claims in Patent Applications, 72 Fed. Reg. 46716 (Aug. 21, 2007)(Claims and Continuations Final Rule). The final rule notice published in the Federal Register indicates that the effective date for the changes to the rules of practice in the Claims and Continuations Final Rule is November 1, 2007. **Additionally, on November 6, 2007, a notice entitled "Clarification of the Transitional Provisions Relating to Continuing Applications and Applications Containing Patentably Indistinct Claims" will publish in the Office Gazette (OG). This notice was originally posted on the USPTO's Web site on October 10, 2007, but because of the normal three to four week publication delay for OG notices is now just appearing.** On October 31, 2007, the United States District Court for the Eastern District Court of Virginia issued a Preliminary Injunction enjoining the USPTO from implementing the changes in the Claims and Continuations Final Rule. **Therefore, the changes to the rules of practice in the Claims and Continuations Final Rule, including the October 10 clarifications, will not go into effect on November 1, 2007.** USPTO employees are to continue processing and examining patent applications under the rules and procedures in effect on October 31, 2007, until further notice.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIAM D. CUMMING whose telephone number is 571-272-7861. The examiner can normally be reached on Monday-Thursday, 11:00am-8:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on 571-272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/WILLIAM D CUMMING/  
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